

SN 10/625,763
Docket No. S-100,646
In Response to Office Action dated December 6, 2005

REMARKS

Applicants appreciate the courtesy shown by the office, as evidenced by the Office Action mailed on March 13, 2006, and the June 14, 2006, telephone interview between Applicants' counsel and Examiner Chester Barry. In the March 13 Office Action, the Examiner rejected Claims 31 and 34-36. Claims 1-30 and 32-33 have been previously canceled. Claim 36 has been canceled, without prejudice, and new Claims 37 and 38 have been added in the present amendment. As such, Claims 31, 34, 35, 37, and 38 remain in the case with none of the claims being allowed.

The March 13 Office Action and June 14 telephone interview been carefully considered. After such consideration, Claims 31 and 34 have been amended, Claim 36 has been canceled, without prejudice, new Claims 37 and 38 have been added, and a Request for Continuing Examination (RCE) is submitted herewith. Applicants respectfully request reconsideration of the application in light of the accompanying amendment and remarks, both of which reflect the content of the June 14 interview, presented herein.

Claim 34 has been amended to correct a misspelling. Claims 37 and 38 have been added to claim additional features of the invention.

Claims 31 and 34-36 are rejected under 35 U.S.C. §103(a) as being obvious over Lidzey (U.S. Patent 5,441,648).

Independent Claim 31 has been amended to recite the limitation that the solid matrix has remnant magnetism that is sufficient to bind the portion of the heavy metals that are bound to the magnetite under flow conditions in which the superficial velocity of water through the magnetic separator is in a range from about 0.5 cm/sec. to about 2 cm/sec.

In order to establish a *prima facie* case of obviousness, a reference must either teach or suggest all of the claimed limitations. Accordingly, Applicants submit that Lidzey neither teaches nor suggests a solid matrix having remnant magnetism that is sufficient to bind the portion of the heavy metals that are bound to the magnetite under flow conditions in which the superficial velocity of water through the magnetic separator is in the range recited in Claim 31.

Applicants submit that Lidzey makes no mention of remnant magnetism of the solid matrix or retention of particles by the matrix using such remnant magnetism. Rather than retaining the particles through remnant magnetization of the matrix, the solid matrix of Lidzey

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retains particles through direct magnetization of the matrix by an electromagnet. See, for example, Figure 1, and column 2, lines 43-60, of the reference.

The Examiner states that magnetic balls such as those described in Lidzey inherently exhibit magnetism. Applicants submit that, assuming *arguendo* that the stainless steel balls of the reference do indeed exhibit remnant magnetism, such remnant magnetism is insufficient to retain heavy metals that are bound to magnetite. Once the electromagnet is switched off, the particles collected on the solid matrix are *not* retained, but are instead removed by washing the matrix with water. See column 4, lines 16-18, of the reference. Because Lidzey teaches that particles are *not* retained by the matrix in the presence of a remnant magnetic field, the reference teaches *away* from a solid matrix having a remnant field that is sufficient for retaining such particles.

Because the reference fails to teach or suggest all of the limitations of the claimed invention, the rejection of Claim 31 and the claims dependent thereon under 35 U.S.C. §103(a) as being obvious over Lidzey is successfully overcome.

In light of the amendments and remarks presented herein, Applicants submit that the case is in condition for immediate allowance and respectfully request such action. If, however, any outstanding issues remain unresolved, the Examiner is invited to telephone the Applicants' counsel at the number provided below.

Respectfully submitted,

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